

AN 10/699,720  
Page 2

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

1. (Previously Presented) An apparatus for monitoring one or more aspects relating to a socket of an prosthetic limb having a residual limb contained therein, the apparatus comprising:

- (a) at least one of a pressure sensor and a force sensor;
- (b) a temperature sensor;
- (c) a moisture sensor;
- (d) a display of values sensed by at least one of the pressure sensor, force sensor, temperature sensor, moisture sensor; and
- (e) an alarm for indicating when a value sensed by one of the pressure sensor, force sensor, temperature sensor, and moisture sensor is beyond a sensor value limit.

2. (Original) The apparatus of claim 1, further comprising a computer for setting sensor value limits.

3. (Previously Presented) The apparatus of claim 2, further comprising a disconnectable connection between the computer and the remainder of the apparatus.

4. (Original) The apparatus of claim 1, further comprising:

- (f) a liner within the socket; and

AN 10/699,720  
Page 3

wherein the apparatus is configured such that pressure between the residual limb and the socket or between the socket and the liner can be sensed.

5. (Currently Amended) An apparatus for monitoring the environment of the prosthetic socket of an artificial limb having a residual limb contained therein, the apparatus comprising:

- (a) at least one sensor positioned at least partially within a wall of the socket for sensing at least one of pressure, force, temperature, and moisture, wherein the at least one sensor can be configured with value limits; and
- (b) an indicator of when a value sensed by the at least one sensor is beyond a value limit; and  
a computer for setting sensor value limits.

6. (Previously Presented) The apparatus of claim 5 wherein the indicator comprises a display for sensed values.

7. (Canceled)

8. (Currently Amended) The apparatus of claim ~~7~~5, further comprising a disconnectable connection between the computer and the remainder of the apparatus.

9. (Original) The apparatus of claim 5, further comprising:

- (c) a liner within the socket; and

wherein the apparatus is configured such that pressure between the residual limb and the socket or between the socket and the liner can be sensed.

10. (Original) The apparatus of claim 5, wherein the sensor for sensing pressure can sense a vacuum between the socket and the residual limb.

AN 10/699,720  
Page 4

11. (Original) The apparatus of claim 5, wherein the sensor for sensing pressure can sense pressure being applied to a portion of the residual limb.

12. (Previously Presented) A method for monitoring aspects relating to a socket of a prosthetic limb and a residual limb contained therein, the method comprising:

- (a) sensing at least one of pressure and force, and at least one of temperature and moisture, with respect to at least one of the socket, the residual limb, and a space there between;
- (b) setting sensor value limits; and
- (c) indicating when a sensed value is beyond at least one of the sensor value limits.

13. (Original) The method of claim 12, further comprising:

- (d) displaying sensed values.

14. (Previously Presented) The method of claim 12, wherein the socket includes a liner and wherein sensing pressure comprises sensing a vacuum between the socket and the liner or between the liner and the residual limb.

15. (Original) The method of claim 12, wherein sensing pressure comprises sensing pressure being applied to a portion of the residual limb.

16. (Original) The method of claim 12, wherein sensing force comprises sensing force being applied to a portion of the residual limb.

17. (Original) The method of claim 12, wherein indicating comprises providing an audible alarm.

AN 10/699,720  
Page 5

18. (Original) The method of claim 12, wherein sensing temperature comprises sensing temperature within the socket.

19. (Original) The method of claim 12, wherein sensing moisture comprises sensing moisture within the socket.

20. (Previously Presented) The apparatus of claim 5, wherein the indicator comprises an audible alarm.

21. (Previously Presented) The apparatus of claim 1, further comprising a vacuum sensor, and wherein the display of values is sensed by at least one of the pressure sensor, force sensor, temperature sensor, moisture sensor and vacuum sensor, and wherein the alarm indicates when a value sensed by one of the pressure sensor, force sensor, temperature sensor, moisture sensor and vacuum sensor is beyond a sensor value limit.

22. (Currently Amended) An apparatus for monitoring the environment of a socket of a prosthetic limb having a residual limb contained therein, the apparatus comprising:

at least one of a pressure sensor and a force sensor;

~~at least one of a temperature sensor;~~

~~and a moisture sensor; and~~

a means for indicating values sensed by at least one of the pressure sensor, force sensor, temperature sensor and moisture sensor.

23. (Canceled)

AN 10/699,720  
Page 6

24. (Previously Presented) The apparatus of claim 22, wherein the means for indicating values comprises a means for displaying the values sensed by at least one of the pressure sensor, force sensor, temperature sensor and moisture sensor.

25. (Previously Presented) The apparatus of claim 22, wherein the means for indicating values comprises an alarming means for indicating when a value sensed by one of the pressure sensor, force sensor, temperature sensor or moisture sensor is beyond a sensor value limit.

26. (Previously Presented) The apparatus of claim 25, wherein the alarming means comprises at least one of an audible alarm and a visual alarm.

27. (Currently Amended) An apparatus for monitoring the environment of the prosthetic socket of an artificial limb having a residual limb contained therein, the apparatus comprising:

a liner mountable over the residual limb and having a wall, the liner receivable within the socket;

at least one sensor positioned ~~at least partially~~ within the wall of the liner for sensing at least one of pressure, force, temperature, and moisture,

wherein the at least one sensor can be configured with value limits; ~~and~~

an indicator of when a value sensed by the at least one sensor is beyond a value limit; and

a computer for setting sensor value limits.

28. (Previously Presented) The apparatus of claim 27, wherein the indicator comprises a display for sensed values.

AN 10/699,720

Page 7

29. (Currently Amended) The apparatus of claim 27, wherein the indicator comprises at least one of an audible alarm and, a visual alarm ~~and a vibratory alarm~~.

30. (Canceled)

31. (Currently Amended) The apparatus of claim ~~30~~27, further comprising a disconnectable connection between the computer and the remainder of the apparatus.

32. (Previously Presented) The apparatus of claim 27, further comprising a sensor for sensing a vacuum within the socket.

33. (Previously Presented) The apparatus of claim 27, wherein the wall of the liner comprises an inner wall to be positioned adjacent to the residual limb, and wherein the at least one sensor is positioned within the inner wall of the liner.

34. (New) An apparatus for monitoring the environment of the prosthetic socket of an artificial limb having a residual limb contained therein, the apparatus comprising:

- (a) at least one sensor positioned within a wall of the socket for sensing at least one of pressure, force, temperature, and moisture, wherein the at least one sensor can be configured with value limits; and
- (b) an indicator of when a value sensed by the at least one sensor is beyond a value limit, wherein the indicator comprises an audible alarm.

35. (New) The apparatus of claim 34 further comprising a computer for setting sensor value limits.

36. (New) The apparatus of claim 35, further comprising a disconnectable connection between the computer and the remainder of the apparatus.

37. (New) The apparatus of claim 34, further comprising:

AN 10/699,720

Page 8

(c) a liner within the socket; and

wherein the apparatus is configured such that pressure between the residual limb and the socket or between the socket and the liner can be sensed.

38. (New) The apparatus of claim 34, wherein the sensor for sensing pressure can sense a vacuum between the socket and the residual limb.

39. (New) The apparatus of claim 34, wherein the sensor for sensing pressure can sense pressure being applied to a portion of the residual limb.